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In The  
**Supreme Court of the United States**  
October Term, 1995

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LOTUS DEVELOPMENT CORPORATION,

*Petitioner,*

v.

BORLAND INTERNATIONAL, INC.,

*Respondent.*

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On Writ Of Certiorari  
To The United States Court Of Appeals  
For The First Circuit

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**BRIEF AMICUS CURIAE OF USERS GROUPS  
IN SUPPORT OF RESPONDENT**

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## INTEREST OF THE AMICI CURIAE

The *amici curiae* Users Groups consist of 61 personal computer ("PC") users groups, with a total membership of approximately 53,000 corporate and individual users. The Users Groups range in size from 50 to over 15,000 members, and include among their members many Fortune 500 businesses and other firms with multiple offices around the country. The Users Groups generally have been organized to provide members with a forum for the exchange of information about computer software and hardware, and to help educate group members and the general public about the development and use of personal computer products. A description of each of the participating Users Groups is set forth in Appendix A.<sup>2</sup> The Users Groups have received the consent of the attorneys for both Petitioner and Respondent to file this *amicus* brief.

As this Court has observed, the federal copyright laws, consistent with their constitutional mandate, "must ultimately serve the public good." *Fogerty v. Fantasy, Inc.*, \_\_\_ U.S. \_\_\_, 114 S.Ct. 1023, 1029, 127 L.Ed.2d 455 (1994). In this case, the Users Groups believe that, to a large extent, they represent personal computer software consumers – in other words, the "public" for whose benefit the copyright laws operate. The Users Groups are well-positioned to provide the Court with important perspective regarding the investment made by users in the Lotus 1-2-3 menu language, and the harm that consumers would suffer if copyright protection is extended to menu command hierarchies, such as the Lotus 1-2-3 menu tree.

<sup>2</sup> This brief was approved pursuant to the balloting procedures of the signatory users groups who exercised complete control over its editorial contents. Borland helped to defray the costs of printing.



Although our position in this brief may benefit respondent Borland International, Inc., ("Borland"), the Users Groups have no allegiance to any particular product or computer vendor. Members of the Users Groups have purchased products by both Borland and petitioner Lotus Development Corporation ("Lotus"), as well as the software products of hundreds of other software and hardware computer vendors, including Microsoft and IBM.

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### SUMMARY OF THE ARGUMENT

Rarely has an intellectual property case before this Court presented such a stark threat to the future development of one of this country's key industries, or invited such widespread legal analysis and commentary over the proper role of copyright in our nation's tradition of technological innovation. Since this litigation first commenced five and a half years ago, evolving standards of intellectual property protection have challenged the high technology industry, and the legal community, as in no other time in this country's history. Underlying this case is the fundamental issue - debated every day in the boardroom and in the courtroom - of where invention leaves off and appropriation begins. This litigation now places this Court squarely at the crossroads of this debate, and necessitates the setting of a course by this Court which will promote the continued development and success of this country's computer software industry in an era marked by rapid and accelerating technological change.

The *amicus curiae* Users Groups respectfully submit that this case presents a unique and timely opportunity to clarify the role of copyright in this developing industry, and to re-affirm that the role of our copyright laws is to serve the *public interest*. In this amicus brief, the Users Groups hope to educate this Court on the critical importance of the Lotus 1-2-3 menu command hierarchy to users of spreadsheet applications, and on how the Lotus copyright claim in this case poses a substantial economic and technological threat to computer users.

From its beginning, federal copyright law has been based on a careful balance between providing sufficient protection to encourage authors to create new works, and "encourag[ing] others to build freely upon the ideas and information conveyed by a work." *Feist Publications, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340, 350 (1991). In attempting to extend copyright protection to the 1-2-3 menu command hierarchy, the District Court failed to strike the proper balance. Instead, the District Court's decision to protect the 1-2-3 command hierarchy through copyright would have seriously harmed consumers and deterred the production of new, innovative products, while allowing Lotus to unfairly reap profits from value that has been added to 1-2-3 by *users*, not by Lotus.

The Users Groups believe that this imbalance may have resulted, at least in part, from the District Court's failure to recognize the extent to which users of computer programs invest in and rely upon the 1-2-3 command hierarchy. As described in more detail below, this investment by consumers has occurred at two levels. First, customers have invested an enormous amount of time and resources in learning and becoming proficient in the

1-2-3 command language. Second, they have created or purchased "macro" programs, often highly complex and sophisticated, that depend upon the 1-2-3 menu tree in order to run. For many corporate and other business users, these macro programs have become an indispensable part of how they run their business.

If Lotus is granted a monopoly in the 1-2-3 menu, users would be unable to switch to a new, superior spreadsheet product without losing this enormous investment. Very much like learning a different arrangement of keys on a typewriter or computer keyboard, users would have to learn an entirely new set of keystroke sequences. Moreover, unlike switching keyboards, users here would have to replace at great expense the macro programs that they created using 1-2-3. Finally, to avoid becoming even more deeply locked-in in the future, existing 1-2-3 consumers would be less likely to create or program new macros, thus deterring the creation of valuable new works – the very aim of copyright protection. Thus, consumers would be harmed twice over: they would be captive to 1-2-3 even if a superior product were developed, and they would be deterred from creating valuable new works lest the technological tie that binds them to Lotus 1-2-3 be tightened even further.

Given the enormous number of users who have purchased or created 1-2-3 macros and made them an integral part of their business, the harm to consumers from Lotus' proposed rule would be substantial even if command languages enabling the creation of macros were characteristic only of spreadsheet products. As explained in more detail below, however, macro languages are a

pervasive and central feature in the effective use of personal computers in the American workplace. Allowing the dominant makers of a handful of operating system and application software programs to monopolize the macros that run on them would dramatically reduce the degree of innovation and productivity that users can achieve through personal computing.

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## ARGUMENT

The following argument is divided into three sections. The first section explains briefly how macro programs currently are used, and provides some examples of popular programs other than 1-2-3 that are used as macro platforms. The second section explains in more detail the nature and scope of the investment made by users in learning the 1-2-3 menu command language and in creating 1-2-3 macros. The final section describes more fully the harm to the public that would result from allowing Lotus to reap where it has not sown.

### **I. Macro Programs are Integral to the Use of Personal Computers in the Workplace.**

Macro programs are a series of recorded keystrokes which may be run with a single command. By allowing the automation of complex or repetitive command sequences, macros permit users, in effect, to develop their own application programs. Thus, for example, macros may be used to transform generic database programs into order entry systems for small businesses, timekeeping



tools for professionals, and patient record repositories for hospitals.

In its earlier opinions, the District Court described certain very simple 1-2-3 macros, most of which consisted of only two or three menu commands. *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 799 F. Supp. 203 (D. Mass. 1992) ("*Borland II*"), Pet. App.<sup>3</sup> 110a-112a, 123a; *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 831 F. Supp. 223 (D. Mass. 1993) ("*Borland IV*"), Pet. App. 31a-33a. These simple examples may aid in understanding how macros work, but they do not give a proper sense of how macro programs, many of which consist of thousands of lines of commands, actually are used in the workplace. For example, in a commercial law firm, macros written for word processing software enable individual users throughout the firm to format a document as a legal pleading, a letter, or an expense voucher in a matter of seconds. At the same firm, macros written for telecommunications programs automate the complex series of commands required to connect computer users to electronic bulletin boards, the Internet, and services such as Lexis and Westlaw.

Because of the enormous power and flexibility that macros provide, a majority of the most popular operating systems and applications platforms – spreadsheets, word processors, database programs, and telecommunications programs – allow users to create macros that automate the commands found in the program's menu hierarchy.

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<sup>3</sup> "Pet. App." refers to the Appendix to Petition for Writ of Certiorari. "JA" refers to the Joint Appendix.

Examples of flagship products with macro-creation facilities include Novell's WordPerfect and Microsoft's Word (word processing), Microsoft's Windows (operating system), Lotus' Notes (groupware), Microsoft's Excel (spreadsheet), and Borland's Paradox (database).

Corporate users often will employ different spreadsheet or other applications programs within the same company. For example, a company's marketing department might run one spreadsheet program, while the finance department runs another; an acquired subsidiary might run a different program from other subsidiaries; or an individual user might prefer one program for graphic displays and another for numeric calculations. In order to utilize the work generated using these diverse programs by different departments, corporations create macros that collect, perform calculations upon, and form data from these different departments. For example, a firm might create an extensive and complex macro program to assist in the annual budgeting process. The macro could be used to obtain sales estimates from the marketing department, manufacturing capacity data from operations, and staffing numbers from human resources. This data would, in turn, be formatted automatically by the macro into a final document for presentation to management. In order effectively to use such valuable, time-saving macro programs, however, the spreadsheet program used by each department must be macro-compatible – *i.e.*, capable of running macros written for – the spreadsheet programs of the other departments. Indeed, in the absence of macro compatibility, companies would be more likely to standardize on a single spreadsheet product, even if it is less

than optimal for many purposes, simply to allow uniform access to and processing of valuable corporate data.

The demand for macros has spawned an entire industry, inspiring third-party authors to create guidebooks and manuals that instruct consumers how to use the menu structure and devise macros using the menu language of numerous application programs. For example, the 800-page *Hacker's Guide to Word for Windows*<sup>4</sup> describes the macro capabilities of Microsoft's Word word processing software. The convenience of macros even has led to the development of programs, such as QuicKeys for the Apple Macintosh, the sole function of which is to permit users to create their own macros. With the development of such products, the pervasiveness of macros will only increase in the future.

## II. Users Have Made An Enormous Investment in Learning the Command Structure and Devising Macros for Lotus 1-2-3.

Users invest in the menu command hierarchy of a program such as 1-2-3 in two principal ways: first, in the time and effort that they devote to becoming proficient in the command hierarchy; and second, in the purchase or creation of macros that depend upon the command hierarchy for their proper operation.

### A. The Users' Skill Set in Lotus 1-2-3

In *Borland II*, the District Court acknowledged that the menu command hierarchy "is a fundamental part of

<sup>4</sup> Woody Leonhard, et al., *Hacker's Guide to Word for Windows* (1995).

the functionality of [both the 1-2-3] keystroke sequences and the macro language." 799 F.Supp. at 207, Pet. App. 110a. With respect to the first of these uses, an example given by the District Court helps to illustrate how keystroke sequences serve as the equivalent to individual keys on a keyboard. To obtain a number that is formatted in dollars, a user would strike four keys: \RFC. The "\" initiates a command sequence, the character "R" implements the "Range" command, the character "F" implements the "Format" command, and the character "C" implements the "Currency" command. *Id.* The "\RFC" sequence thus serves the same kind of role that the "\$" key serves on a QWERTY keyboard. Another illustrative example is the keystroke sequence used to delete the contents of a particular cell on the spreadsheet. The user does not hit the "delete" key on the keyboard. Instead, the user types the sequence "\RE," for "command," "Range," "Erase."<sup>5</sup>

The other role served by the menu command hierarchy is to act in effect as the programming language for macro programs. Just as when programming in BASIC or C, a macro program developer is concerned primarily with the function that each keystroke or word will

<sup>5</sup> Lotus complains that the Court of Appeals' analogy to buttons on a Video cassette recorder ("VCR") is inaccurate because a 1-2-3 user cannot perform an operation by hitting a single key. See Brief for the Petitioner at 9 n.15. This is a distinction without a difference: numerous 1-2-3 operations, for example, consist of 3-keystroke sequences, such as saving a worksheet ("\FS") and erasing a worksheet ("\WE"). See *Lotus 1-2-3 Reference Manual, Release 2.0* at 91, 57. It also suggests that most functions on a typical VCR can be accomplished with a single button – an assumption that does not coincide with our experience with such machines.



invoke. Third party authors thus have expressly equated the 1-2-3 command structure with a programming language. See, e.g., E.M. Lunsford, *Classic 1-2-3 Macros*, p. 3 (3d ed. 1994) In fact, according to Lunsford, "some studies have shown that more people are programming with macros than with any other language." *Id.*

Users have expended countless hours, at significant cost, learning how to use the command hierarchy and to create 1-2-3 macros. As the examples given above demonstrate, the proper keystroke sequences are not necessarily intuitive: for example, saving a worksheet ("FS" or "File Save") and erasing a worksheet ("WE," or "Worksheet Erase") are not even on the same fork of the 1-2-3 menu "tree." A user must spend a great amount of time learning the menu structure in order to be able to operate the program in a "heads down" fashion. To an extent not true of an ordinary keyboard, and contrary to the suggestion in Lotus' Brief (Brief for the Petitioner at 11), "hunt and peck" simply is not a viable option. Indeed, if the user had to look up the difference between "\WGC" (setting column width for the entire spreadsheet), "\WCS" (setting width for a particular column) and "\WGL" (aligning column labels) every time the user wanted to readjust the columns, the spreadsheet might well never get finished.

The complexity of the keystroke sequences is itself an important reason why users have invested enormous resources in learning how to program macro "shortcuts." Thus, for example, 1-2-3 requires a user to type up to 15 keystrokes in order to enter the date – that is, unless the user creates a date macro. It is perhaps not surprising under these circumstances (and given Lotus' historic

dominance of the spreadsheet market),<sup>6</sup> that colleges and universities around the country provide training on how to use and create macro programs in 1-2-3. For instance, the Users Groups pointed out to the Court of Appeals that in the surrounding Boston area, all undergraduate business students at Northeastern University must take a four credit hour course entitled "Computer-Based Information Systems." A significant amount of the course is devoted to learning how to use and program macros in Lotus 1-2-3. Similarly, all undergraduates at Babson College in Babson Park, Massachusetts are required to take a four credit hour course entitled "Introduction to Information Systems." Approximately one-third of the course is devoted to learning Lotus 1-2-3.

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<sup>6</sup> In the Court of Appeals, Borland cited media sources as reporting in August 1992 that Lotus claimed market share of approximately 70%. Brief of Defendant/Appellant Borland International, Inc. at 21 (1st Cir.) (No. 93-2214). Lotus suggests that the Court (and presumably consumers) should draw solace from the fact that Microsoft was able to use its monopoly in the operating systems market to replace Lotus as the dominant spreadsheet provider. Brief for the Petitioner at 16. The Users Groups draw scant comfort from this example. To begin with, Lotus never sought to prevent Microsoft from making its Excel program compatible with 1-2-3 macros, so Microsoft was able to "migrate" 1-2-3 users to Excel. More fundamentally, it illustrates the extent of the dependence of programs on the software platform underlying it. Thus, just as 1-2-3 macros depend on their compatibility with the underlying spreadsheet program, 1-2-3 depends on its compatibility with the underlying operating system. Because Microsoft, through its control of the operating system socket, was able to ensure that Excel was the first Windows-compatible spreadsheet, it was able to cut the ground out from under 1-2-3.



Responding to user demand, continuing education divisions of many universities also offer such courses. For instance, Harvard University's Office of Information Technology offers two courses in 1-2-3 training, one lasting seven and the other fourteen hours. Within close proximity to this Court, Georgetown University and the University of Virginia both offer classes featuring Lotus 1-2-3. Georgetown offers a 12-hour course on "Lotus Fundamentals," while UVA offers Lotus training in two 3-unit courses entitled "Microcomputer Applications in Computer Information Systems," and "Microcomputer Applications for Managers."<sup>7</sup>

In addition to university-sponsored coursework in Lotus 1-2-3 macros, a number of companies regularly provide training to U.S. government agencies and the Department of Defense, as well as to companies doing business with such government agencies. For example, ExecuTrain provides a course on "Lotus 1-2-3 for Windows Advanced Spreadsheet and Database" for technology companies such as IBM (now the parent company of Lotus), Intel, Digital Equipment Corporation, Hewlett-Packard, Honeywell, and Sony, and for Fortune 500 companies such as Dow Chemical, Eastman Kodak, General Electric, General Motors, Chrysler and AT&T. Similarly, Future Enterprises, Inc. provides a course on "Advanced Spreadsheet Concepts Using Lotus 1-2-3" for such government agencies as the Department of Justice, the Internal Revenue Service, the Department of Energy, the

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<sup>7</sup> Similarly, the University of Maryland Business School offers a course called "Business Information Systems," for which training in Lotus 1-2-3 is a prerequisite.

National Labor Relations Board, and the Central Intelligence Agency. Both ExecuTrain and Future Enterprises are authorized Lotus training centers.<sup>8</sup>

Finally, private employers have committed enormous resources to training employees in the use of Lotus 1-2-3, and 1-2-3 macros. Spreadsheets are integral to the efficient and effective operation of virtually every major segment of business, from marketing to manufacturing, and employers accordingly have included 1-2-3 training as part of basic orientation for many thousands of their employees. Firms that have provided 1-2-3 training to employees include Levi Strauss & Co.,<sup>9</sup> Sears Roebuck & Co.,<sup>10</sup> New York Telephone,<sup>11</sup> and Area Temps.<sup>12</sup> Similar examples could be found many times over throughout the country, with many other types of computer programs that employ a complex menu structure and permit the creation of labor-saving macros.

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<sup>8</sup> The U.S. Department of Agriculture operates its own training center, with a course entitled "Lotus 1-2-3 for Windows: Intermediate," available to all federal government agencies and the Department of Defense.

<sup>9</sup> Mary C. Thorsby, *Levi's Delivers Lessons in Learning*, MISS. BUS. J., Oct. 18, 1993 at 7.

<sup>10</sup> Jennifer King, *How State of the Art Technology Transformed Sears Roebuck & Co.'s Law Department*, CORPORATE LEGAL TIMES, Aug. 1992, at 6 (legal department trained to use 1-2-3).

<sup>11</sup> Steve Stecklow, *1-2-3 Training Options; Instructions for Lotus Development Corp.'s Lotus 1-2-3 Spreadsheet Software and Other Software Packages*, ASAP: LOTUS, July 1992, at 36.

<sup>12</sup> Caren Goldman, *Traditional Jobs Replaced by New Opportunities*, PLAIN DEALER (Cleveland Ohio), Oct. 4, 1994, at 21 (small midwestern temporary employment agency which also offers 1-2-3 training to employers).

### B. The Users' Acquisition of 1-2-3 Macros

Users not only have an investment of time spent learning 1-2-3, but they also have an investment in the macros themselves. Some of this investment is monetary, inasmuch as 1-2-3 macros are available in virtually any computer store. For instance, "101 Macros Plus for Lotus 1-2-3" offers approximately 150 ready-to-use macros that allow users to create graphic slide shows and to automate their spreadsheets. Another product named "@analyst" provides financial analysis for various securities, including bonds, bills, certificates of deposit, options, and mortgage-backed securities. Likewise, "Crystal Ball," which aids financial analysts and other professionals, is a forecasting and risk-analysis software package based upon Lotus 1-2-3 for Windows.

Perhaps more typical, at least for large users, is the creation of the user's own proprietary 1-2-3 macros. For example, large accounting firms have developed macros which download information stored on mainframe computers into a spreadsheet that can be used by individual auditors working on personal computers anywhere within the firm. Similarly, stock brokerage firms have developed proprietary macros that enable individual brokers to perform sophisticated risk analyses, while commercial brokerage firms run 1-2-3 macros in order to enable their employees to perform rapid and sophisticated analyses of their listings. Not surprisingly, Lotus has actively encouraged the development of customized macro programs, recognizing that such macros greatly

increase the range of uses to which 1-2-3 can be put (and hence the size of the market of potential customers).<sup>13</sup>

Common to all 1-2-3 macros, whether purchased commercially or developed by the user itself, is their dependence upon the 1-2-3 menu commands and their order and sequence (in other words, the menu command hierarchy). The District Court recognized this dependence, finding that "the menu commands are an important part of the functionality of the macros." *Borland II*, 799 F.Supp. at 208, Pet. App. 112a. Put differently, without the ability to use the menu command hierarchy, the macro programs are worthless, and users' investments in those macros are lost.

### III. Lotus' Monopolization of the 1-2-3 Command Hierarchy Would Inflict Substantial Harm on Consumers and Would Encourage Stagnation in the Computer Software Market.

The harm that consumers would suffer if Lotus were able to monopolize the 1-2-3 menu hierarchy comes both in the form of time lost spent learning the menu and devising macros that use it, and in the impairment of users' property rights in the macros that they have created or purchased. In both instances, this harm is matched by a concomitant chilling of the incentive of users and third parties to create new and innovative software products.

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<sup>13</sup> Commencing with the very first 1-2-3 users' manual, Lotus has pointed out the advantages of creating macro programs and has encouraged their use. Declaration of Vern L. Raburn at ¶ 17 and Exh. B, JA 529-530, 535.



### A. Consumers Would Become Locked-In To Lotus 1-2-3.

In his concurring opinion in the Court of Appeals, Judge Boudin fairly summarized the threat posed to computer users if Lotus' copyrights for the 1-2-3 menu command hierarchy are sustained by this Court: "the present case is an unattractive one for copyright of the menu. The menu commands (e.g., "print," "quit") are largely for standard procedures that *Lotus did not invent* and are common words that *Lotus cannot monopolize.*" *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 49 F.3d 807, 821 (1st Cir. 1995) (emphasis added), Pet. App. 26a. Judge Boudin correctly noted that the importance of the 1-2-3 menu over time "may come to reside more in the investment that has been made by users in learning the menu and in building their own mini-programs - macros - in reliance upon the menu," *Id.* at 819, Pet. App. 24a, and analogized the "lock-in" effect on 1-2-3 users to typists who have become familiar with the QWERTY keyboard. *Id.* at 821, Pet. App. 26a. As that analogy reflects, the barrier is not an insuperable one: a corporation could require all of its typists to switch to a nonstandard keyboard, even though it meant retraining hundreds or thousands of employees. The question simply is how much time already has been invested in the present system, and how much time would be required for retraining.

In the case of the 1-2-3 menu command hierarchy, the answer on both counts is "a lot."<sup>14</sup> For a typical corporate

<sup>14</sup> Lotus' argument that there was no evidence in the record regarding the extent of "lock-in" is baffling, inasmuch as it

user, the investment of employee time in the 1-2-3 command structure is both broad and deep. Many, if not most, employees are trained how to use the menu command hierarchy and the macros that routinely are run on the 1-2-3 platform. A few employees or independent contractors may have devoted many thousands of hours to developing proprietary macro programs using the 1-2-3 command language. To switch to an incompatible spreadsheet program, all of that time would have to be spent again, rewriting spreadsheet macros and retraining employees in their use. Moreover, even that investment might not be enough, because, unlike the user of the QWERTY keyboard, the 1-2-3 consumer has the additional hurdle of potentially needing to transfer enormous quantities of data from the old to the new spreadsheet program. The programming entailed in effecting such a transfer can itself be a Herculean task.

The First Circuit decision in this case correctly recognized the importance to computer users of program compatibility, and characterized as "absurd" the proposition

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appears to the Users Groups to have been a point on which all sides agreed. For example, Lotus' expert stated in his declaration:

Once users did learn the 1-2-3 menu commands and came to identify them with Lotus 1-2-3 those particular commands and their arrangement clearly acquired great significance. Their *current* value, to both Lotus and Borland, lies precisely in the familiarity that millions of 1-2-3 users have acquired with them in the more than eight years subsequent to the product's introduction.

Declaration of James C. Emery ("Emery Decl.") at ¶ 113, JA 343-344 (original emphasis).



that a computer user should be forced to learn how to perform the same operation in several different ways if the user happens to be running several different programs. This absurd result is precisely what Lotus' copyright theory guarantees – *unless* users simply decide not to purchase or use other programs, and thus become "locked-in" to Lotus. Either way, competition is harmed and computer users will be *powerfully discouraged* from using computer software to create new and useful ways of more efficiently running their businesses and promoting more cost-effective solutions to complex computing problems.<sup>15</sup>

The number of consumers who face the risk of becoming captive to Lotus through their investment in

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<sup>15</sup> Lotus entirely misconstrues the competitive issue at stake in this case as one involving the "forfeiting" of copyright protection when a software program "has become – for the moment – the most popular." Brief for the Petitioner at 47. Of course, the First Circuit's opinion finding the Lotus 1-2-3 menu command hierarchy to constitute a "method of operation" under 17 U.S.C. § 102(b) does not depend on any finding that Lotus 1-2-3 is "the most popular" spreadsheet program. One can imagine an equally pernicious competitive impact if purely anonymous computer programmers were permitted to copy-right other basic means of computing, and lay claim to all "derivative works" using substantially similar means. The past ten years of patent case law has taught us that the biggest manufacturers do not have a monopoly on obtaining software patents, even with the far more stringent requirements for obtaining patent rights. We can reasonably predict that if Lotus' position is accepted by this Court, a veritable cottage industry will develop involving copyrights to the most basic means of operating computer programs, with disastrous competitive consequences.

the 1-2-3 menu is very large: the Users Groups believe that the number of affected 1-2-3 users likely runs in the *millions*. The harm to consumers, however, would not be limited to 1-2-3 customers. As noted previously, many other software manufacturers – including some of the dominant players in the industry such as Microsoft – have enabled and encouraged consumers to develop their own proprietary macros using menu command languages, and many of these programs have become an indispensable part of their users' efficient operations. Users of these other programs would therefore appear to have the same potential for being "locked in" as those who have allowed their business to become integrally dependent upon 1-2-3.

Given the obvious importance of the "lock in" effect if copyright protection is granted to Lotus in this case, the Users Groups are mystified by Lotus' apparent argument that the issue of "lock-in" due to computer users' need for macro compatibility "was not before the court of appeals and could not properly form a basis for its decision." Brief for the Petitioner at 15. Lotus itself cites to numerous examples in the Record demonstrating the importance of macro compatibility, including the testimony of Lotus' own expert. *Id.* at 13-15. We submit that Lotus' attempt to have this Court simply sidestep this critical issue is not supportable, and Lotus' characterization of the Users Groups' arguments below as "grossly exaggerated" is disingenuous at best.<sup>16</sup> In the final

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<sup>16</sup> In the proceedings before the First Circuit, a group of nineteen users groups filed an *amici curiae* brief. Virtually all of those users groups also join in the current brief.

analysis, the very thing that Lotus says was not properly before the First Circuit – macro compatibility – is at the very heart of Lotus' claim of copying, as witnessed by Lotus' own description of "the nature and purpose of Borland's copying." Brief of the Petitioner at 11-15. If, as Lotus posits, the desire to promote macro compatibility is one of the primary motivations for Borland's creation of the "1-2-3 emulation" menu tree, the Users Groups not only find that motive understandable, we applaud it and support it.<sup>17</sup>

**B. Consumers Would Lose Their Intellectual Property Rights in Their Own Macros.**

The discussion above noted one way in which the QWERTY analogy, though apt, may understate the extent of consumer harm that would result from Lotus' proposed monopoly. There is, in addition, another way in which the analogy should be modified to make it parallel the experience of users of 1-2-3. Customers who have built up a set of 1-2-3 macros not only lose the money they expended in purchasing commercial macros, and the time spent in developing proprietary macros. They also

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<sup>17</sup> Lotus belittles the Users Groups' competitive concerns by calling them "overstated," and suggesting that consumers are free to pursue antitrust remedies to redress the competitive harm caused by its conduct. However, as the many individual users represented by the Users Groups on this appeal will attest, the option of spending many years and millions of dollars fighting with Lotus and IBM over the competitive harm caused by their unfair copyright monopoly is no option at all for these individuals, or for the non-profit Users Groups who represent their interests here.

lose the separate property rights that they have as the creators of their own macros programs. In other words, it is as though the company that wished to switch from QWERTY to another keyboard had to throw away some of the documents created using the QWERTY keys.

The District Court reserved the question whether 1-2-3 owners actually own the programs that they create using the 1-2-3 macros language, but Lotus and the Users Groups both agree that the end user owns its own macros. Indeed, Lotus confirmed the user's ownership rights in macros during a telephone conference with approximately 16 user group representatives (including several of the undersigned *amici*) on September 1, 1993, shortly before the briefing on appeal in this case. Lotus recorded this conversation, had it transcribed, and posted the transcript to an electronic bulletin board that was available to the public. The following excerpts from the transcript, although not part of the official record in this case, are telling:

Statement from Mr. Frank Ingari, Lotus Vice President of Marketing: "Customers develop macros. So, there's customer intellectual property involved. We understand that . . . And it is true – customers have rights too. You created intellectual property when you wrote a macro."

Statement from Mr. Tom Lemberg, Lotus Vice President and General Counsel: "Well, I think that, you know, in order for the user – the user, of course, own his or her own macros."

As the owners of these software programs, we submit that users have the right to fully use, transfer, translate, and exploit the product. In preventing a competitor of



Lotus from incorporating a menu command hierarchy essential to the execution of that program, however, Lotus' proposed rule would substantially limit users' intellectual property rights in their own programs.<sup>18</sup>

The mirror image of this restriction on users' rights is the deterrent effect that Lotus' proposed rule would have on the development of programs to compete with 1-2-3. From a user's perspective, Borland engaged in precisely the type of conduct that the intellectual property laws should promote: it provided users with a completely different menu command hierarchy, and at the same time, provided the equivalent of a "socket" to allow users to run their existing macro programs. If construed to prevent competitors offering such compatibility, the copyright law perversely would deepen users' "lock-in" to their existing platform, and would correspondingly reduce the incentive for competitors to try to break the lock.

In sum, there is no public benefit, and much public harm, from allowing Lotus to obtain a monopoly windfall

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<sup>18</sup> During proceedings in the District Court, Lotus conceded that it is attempting to appropriate value that was created by Lotus 1-2-3 users. Indeed, as Lotus' expert, James Emery, stated, there are a "virtually infinite variety" of ways in which a menu command hierarchy could be structured, and there is nothing particularly special about Lotus' arrangement: in his words, "it would be very difficult to say one [menu arrangement] is better than another." Deposition of James Emery at 202, JA 598. The value came instead from 1-2-3 users: as noted above, he recognized that the 1-2-3 commands' "current value, to both Lotus and Borland, lies precisely in the familiarity that millions of 1-2-3 users have acquired with them in the more than eight years subsequent to the product's introduction." Emery Decl. at ¶ 113, JA 344 (original emphasis).

as a result of the value created not by Lotus but by the 1-2-3 users who are members of these Users Groups, and by other 1-2-3 users around the country. The Users Groups therefore respectfully submit that the decision of the Court of Appeals should be affirmed.

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## CONCLUSION

The Record before this Court fully supports the Court of Appeals' decision in this case that the Lotus 1-2-3 menu command hierarchy constitutes a non-copy-rightable method of operation. Any contrary result will lead to an unwarranted and unjustified extension of this country's copyright laws, and a dangerous grant of monopoly power to Lotus and other companies in the rapidly developing computer software industry. At stake are the rights of millions of computer users who have invested enormous resources in their computer software, and who will be the biggest losers if this Court does not affirm. We urge this Court to give due regard in this case to the underlying purposes of our copyright laws, which are to serve the public interest. Otherwise, we fear that copyright protection will serve only the interests of those who, like Lotus in this case, wish to limit further development of the computer software industry to only those few who admittedly helped give birth to the industry, but who now are threatened by a new generation of products



and ideas. Surely, Congress did not intend the copyright laws to reward the past, while risking our future.

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Respectfully submitted,

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## APPENDIX A

### DESCRIPTION OF AMICI CURIAE USERS GROUPS

1. **Amicus Curiae Alamo PC Organization, Inc.** [San Antonio, TX] is a non-profit organization dedicated to furthering the knowledge of and to promote the effective use of personal computers to its members and to the public by instructional programs, activities and services. Membership consists of approximately 5,800 individual users.

2. **Amicus Curiae Buffalo IBM-PC User Group** [Amherst, NY] is a non-profit organization which provides education and information to members and the public, and provides support and assistance to members with regards to computer and related issues. Total membership is over 600, consisting almost entirely of individual computer users.

3. **Amicus Curiae Cajun Clickers Computer Club** [Baton Rouge, LA] is a non-profit organization whose purpose is to promote the education of its members and the general public in regards to computer knowledge, information and solutions to problems relative to IBM compatible computers. The group consists of approximately 1,450 individual and corporate users.

4. **Amicus Curiae Capital PC User Group, Inc.** [Rockville, MD] is a non-profit organization founded in 1982, and is one of the oldest IBM and compatible personal computer user groups in the country. It is also one of the largest, with approximately 5,800 members in the greater Washington D.C. area. The group is all volunteer, with a central theme of "users helping users." More than

## App. 2

60% of its members make decisions and/or recommendations about the purchase of computer equipment within their companies or government agencies.

5. **Amicus Curiae Chalmette Computer Users Group-PC [Chalmette, LA]** is a non-profit organization dedicated to the education, facilitation, and fostering of usage of computers. Total membership is 125.

6. **Amicus Curiae Channel Islands Personal Computer Users Group [Ventura, CA]** is a non-profit public benefit corporation organized for the specific purpose of educating users in the operation of personal computers, and facilitating the legitimate exchange of computer programs. Membership is approximately 400 individual users.

7. **Amicus Curiae Chicago Computer Society [Wauconda, IL]** is a non-profit organization dedicated to training and educating its members in computer-related matters. Membership is approximately 2,300 individual and corporate users.

8. **Amicus Curiae Detroit Area Network Users Group [Pleasant Ridge, MI]** is a non-profit organization dedicated to support and education for users, administrators and integrators of computer networks. The group works collaboratively with value added resellers, manufacturers, recruiters and end users in the computer network industry. Membership is approximately 300 corporate users, principally small and large users, integrators, and administrators of computer networks and related systems.

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9. **Amicus Curiae Diablo Valley PC Users Group [Walnut Creek, CA]** is a non-profit organization and its principal purpose is to educate members through meetings, publications, tutorials and related activities, as well as the collection of public domain software for use by members. Membership is approximately 450 individual and corporate users.

10. **Amicus Curiae Computer Erie Bay User Group [Sandusky, OH]** is a non-profit organization dedicated to local computer users of all kinds with many levels of experience, providing support for users of various PC-compatible systems. Membership is approximately 42 individual and corporate users.

11. **Amicus Curiae Florida Association of Computer User Groups, Inc. [Winter Haven, FL]** comprises over 34 member groups, including PC and Mac groups, founded in 1993 to assist user groups in the performance of their managerial and educational activities, and is the successor organization to the Florida Sun Coast Conference of PC User Groups. Total membership of all member groups is in excess of 15,000 members.

12. **Amicus Curiae Glendora Seniors Computer Club [Glendora, CA]** is a non-profit organization for seniors fifty years of age or over, dedicated to helping members solving computer problems, presenting new or unfamiliar hardware or software, sharing ideas on how best to use existing software, and helping seniors to become better informed about computers. Membership is approximately 50 individual users.

13. **Amicus Curiae Golden Triangle PC Club [Beaumont, TX]** is the leading PC Users Group serving



southeast Texas, and strives to educate its membership and the surrounding community in the proper use of computer hardware and software for the PC platform. Membership is approximately 200 individual and corporate users.

14. **Amicus Curiae Greater Cleveland PC Users Group [Cleveland, OH]** is a group designed to enhance personal and professional growth by providing low cost education and information about current computer technology, and to provide a friendly atmosphere encouraging the exchange of ideas, information and experiences in relation to computer and information technology. The organization consists of approximately 800 individual and corporate users.

15. **Amicus Curiae IBM AB Users Group [Laguna Hills, CA]** is a non-profit organization dedicated to presenting state-of-the-art computer items to its membership. Membership is approximately 385 individual and other users.

16. **Amicus Curiae Idaho PC Users Group [Boise, ID]** is a non-profit organization which provides a means to educate and provide information of a timely nature to personal computer users, both within the membership, and among the Idaho PC user community at large. Total membership is 225, including both individual and corporate computer users.

17. **Amicus Curiae Kentucky-Indiana Personal Computer User's Group, Inc. [Louisville, KY]** is a non-profit organization which promotes the exchange of computer-related information, assists and encourages new personal computer users, and provides computer-related

services to the community. Membership is approximately 730 individual and corporate users.

18. **Amicus Curiae Long Island PC Users Group [Baldwin, NY]** is a non-profit organization which for the past fifteen years has been dedicated to disseminating information on PC products through regular meetings and seminars, formation of special interest groups for various software applications, and other activities. Membership is approximately 450 individual users.

19. **Amicus Curiae Los Angeles Computer Society [Los Angeles, CA]** is a non-profit public benefit corporation which provides a forum in the Los Angeles community for exchanging ideas and information about computers and their uses and provides education and help in solving computer-related problems. Membership is approximately 400 individual and corporate users.

20. **Amicus Curiae Macintosh User Group of Orlando [Winter Park, FL]** is a Macintosh computer interest group for the hobbyist, as well as professionals and new users, with membership of approximately 380 individual and corporate users.

21. **Amicus Curiae Manatee PC Users Group [Bradenton, FL]** is a non-profit organization designed for the educational, literary and scientific benefit of computer users. The group consists of 695 individual users.

22. **Amicus Curiae Memphis PC Users Group, Inc. [Memphis, TN]** is a non-profit organization dedicated to the education and support of all personal computer users, consisting of over 750 individual and corporate computer users.



23. **Amicus Curiae Microlink PC User Group [Whittier, CA]** is a non-profit organization consisting of approximately 70 individual users, ranging from beginners to PC industry engineers and experienced consultants. In addition to educational efforts, the group provides technical support and computer donations to charities in Southern California.

24. **Amicus Curiae Mid-Cities PC Users Group [Hurst, TX]** is an organization whose purpose is to provide a forum for members to share information and experiences that will help other members obtain maximum benefit and personal satisfaction from the use of their personal computers. The group consists of 105 individual and corporate users.

25. **Amicus Curiae Milwaukee Area IBM PC Users Group, Ltd. [Milwaukee, WI]** is a non-profit organization which provides a forum for members to share information and experiences which will help other members obtain maximum benefit and enjoyment from the use of their computers. Membership consists of approximately 150 individual and corporate users.

26. **Amicus Curiae Napa Valley PC Users Group [Napa, CA]** is a non-profit organization which provides a forum for members to share information and experiences that will help them to obtain the maximum benefit and enjoyment from the use of their computer. The group consists of 120 individual users.

27. **Amicus Curiae PC Clubhouse [Hayward, CA]** is a non-profit organization which promotes education about PC software, hardware and general usage. It has a membership of over 300 individual users.

28. **Amicus Curiae PC/Minnesota User Group, Inc. [St. Louis Park, MN]** is a non-profit organization whose mission is to utilize current and future communication technology, computer technology, and educational expertise to encourage, promote and support the exchange of information among personal computer users throughout the state of Minnesota. The organization consists of approximately 87 individual and corporate users.

29. **Amicus Curiae National Capital Tandy Computer User's Group, Inc. [Arlington, VA]** is a non-profit organization founded in 1977, at the dawn of the micro-computer revolution, to meet the needs of users of the early Radio Shack computers. Since then the organization has served members in the Washington metropolitan area, advancing the use of personal computers among members, providing a forum where personal computer information can be freely exchanged. Membership is approximately 97 individual users.

30. **Amicus Curiae PC Tech User Group [Lafayette, CA]** provides the latest technical computer knowledge to the public, and consists of over 100 individual users.

31. **Amicus Curiae Pacific Northwest PC Users Group [Bellevue, WA]** is a non-profit organization which supports the education of personal computer users through sharing knowledge and experiences, and emphasizes users helping users. Membership consists of approximately 589 individual and corporate users.

32. **Amicus Curiae Palmetto Personal Computer Club [Columbia, SC]** is a non-profit organization whose purpose is to assist DOS, Windows and OS2 type users to

better utilize their computer systems. Membership is approximately 383 individual users.

33. **Amicus Curiae Perry GA PC Users Group [Warner Robins, GA]** is a non-profit organization formed to promote the broader use, better understanding and more total application and use of programs and computers, through training and communication among members. Membership consists of approximately 50 individual users.

34. **Amicus Curiae Philadelphia Area Computer Society [Philadelphia, PA]** is a non-profit organization formed for the purpose of education and communication among computer users in the greater Philadelphia area and to inform the general public concerning computer technology and its implications for the future. Membership is approximately 1,100 individual and corporate users.

35. **Amicus Curiae Phoenix IBM-PC Users Group, Inc. [Phoenix, AZ]** is a non-profit organization which fosters an interest in IBM-type personal computers, and educates and encourages interaction between computer enthusiasts in the greater Phoenix area. The organization is comprised of approximately 900 individual and corporate users.

36. **Amicus Curiae Pioneer Valley PC Users Group [North Amherst, MA]** provides education and support for users of personal computers on home, business and educational applications. This non-profit organization has a membership in excess of 250 individual users.

37. **Amicus Curiae Polk IBM-PC Users Group, Inc. [Lakeland, FL]** is a non-profit organization which develops, encourages and stimulates interest in personal computers and their uses, and promotes the cultivation of free exchange of information among those with an interest in computer science. Membership consists of approximately 300 individual users.

38. **Amicus Curiae Quad Cities Computer Society [Davenport, IA]** is a non-profit organization whose purpose is to provide a forum for communicating ideas, resolving problems and increasing the effectiveness of users of microcomputers and related software and peripherals, and to educate the public concerning the advantages and disadvantages of microcomputers in general. Membership is approximately 800 individual and corporate users.

39. **Amicus Curiae Red River Personal Computer Club [Wichita Falls, TX]** is a non-profit organization which aids computer users in the use of computers, with an emphasis on monthly meetings, user classes and similar assistance. The group consists of approximately 125 individual users.

40. **Amicus Curiae Rockland PC Users Group [New City, NY]** is a non-profit organization, the purpose of which is to exchange computer-related ideas and information among its members, to engage in computer-related activities for the benefit of the membership, to increase the understanding and utilization of the personal computer, and to provide a medium for the exchange and propagation of public domain software, freeware and



shareware. Membership is approximately 225 individual users.

41. **Amicus Curiae Sacramento PC Users Group, Inc. [Sacramento, CA]** is a non-profit organization whose goal is to provide a forum in the greater Sacramento community for the exchange of ideas and information regarding personal computers, including IBM microcomputers and related compatible computers, and to provide assistance in solving hardware and software problems encountered during the use of these computers, among other purposes. Membership is approximately 2,600 individual users.

42. **Amicus Curiae Saginaw Valley Computer Association [Saginaw, MI]** is an organization which provides a forum for members of the IBM and compatible community for their mutual benefit, and the better utilization of their computers, and provides an opportunity for all users of IBM and compatible computers to exchange ideas, knowledge and experience. Membership is approximately 200 individual users.

43. **Amicus Curiae San Diego Computer Society [San Diego, CA]** promotes the general understanding of computers and, seeks to further the progress in the development and application of computers to our lives. The group consists of approximately 1,200 individual users.

44. **Amicus Curiae San Francisco PC Users Group [San Francisco, CA]** is a non-profit educational corporation dedicated to the collection and distribution of information concerning personal computers to its members and the general community. Membership is approximately 375 individual and corporate users.

45. **Amicus Curiae Santa Barbara PC Users Group [Santa Barbara, CA]** is a non-profit organization whose purpose is to provide information and support to users of personal computers. Membership is approximately 240 individual users.

46. **Amicus Curiae Santa Clarita Valley PC Group [Canyon Country, CA]** is an organization providing a forum for computer users to learn about PC software and hardware, and consists of approximately 145 individual users.

47. **Amicus Curiae Sierra Vista IBM PC Users Group [Sierra Vista, AZ]** is a non-profit organization which encourages the development of computer literacy and to promote the responsible use of computers. The group consists of over 50 individual and corporate users.

48. **Amicus Curiae Silicon Valley Computer Society [Santa Clara, CA]** is a non-profit organization whose primary objectives and purposes is to educate the public on personal computing through affordable classes, product demonstrations, publications, and access to technology, as well as to promote an understanding of personal computer technology and issues, and to provide a forum for public discussion of personal computing. Membership is approximately 500 individual and corporate users.

49. **Amicus Curiae South Mountain Users Group [Phoenix, AZ]** is a non-profit organization established to aid computer owners in achieving maximum results from their home or small business computers, and to serve as a reference source to make users aware of available materials. The group consists of approximately 135 individual and corporate users.



50. **Amicus Curiae Southwest Florida PC Users Group [Naples, FL]** is a non-profit organization which assists computer users in the use, enjoyment and enhancement of personal computers. Total membership is approximately 300, consisting of both individual and corporate users.

51. **Amicus Curiae Sun City Center PC Users Group [Sun City Center, FL]** is a non-profit organization of over 350 individual members, dedicated to IBM PC users, with a primary emphasis on education through classes and training on the operation of the PC.

52. **Amicus Curiae Tampa Bay Computer Society [St. Petersburg, FL]** is a non-profit organization dedicated to sharing PC knowledge, and to helping PC users learn and understand their software and hardware. Membership is approximately 2,000 individual and corporate users.

53. **Amicus Curiae Technical and Users Group Network [La Crescenta, CA]** is a non-profit organization whose specific purpose is to provide a forum for expressing ideas, resolving problems and increasing the effectiveness of users of computers, and related software and peripherals, and encouraging the creation, modification, maintenance, duplication and distribution of public domain software. Membership is approximately 200 individual and corporate users.

54. **Amicus Curiae Temple Area PC Club [Temple, TX]** is a non-profit organization dedicated to exchanging ideas and information relating to home and business computing, with membership of approximately 60 individual and corporate users.

55. **Amicus Curiae Thousand Oaks Personal Computer Club [Thousand Oaks, CA]** is a non-profit organization dedicated to enhancing the effective personal and business use of personal computers, providing feedback to the computer industry on hardware and software issues, and serving the local community as an educational resource in the personal computer field. Membership is approximately 70 individual users.

56. **Amicus Curiae Tucson Computer Society [Tucson, AZ]** is a non-profit organization of executives, entrepreneurs and home users who are interested in sharing ideas and information about the full range of personal computers. Membership is approximately 950 individual and corporate users.

57. **Amicus Curiae University of South Florida Personal Computer Users Group [Tampa, FL]** is a non-profit organization which provides education, information sharing and mutual support to computer users. The organization was founded in 1982, and consists of approximately 400 individual and corporate users, as well as faculty, staff and students of the University of South Florida.

58. **Amicus Curiae Users Personal Computer Organization [East Lansing, MI]** is a non-profit organization the purpose of which is to encourage and promote the use of personal computers and software, to assist members in enhancing their use and understanding of these systems, to provide a forum for the free exchange of information about these systems, and to take such other actions permitted by law as the membership may deem desirable. The group consists of over 50 individual and corporate users.

59. Amicus Curiae Utah Computer Society [Salt Lake City, UT] is organized to promote, educate and encourage the use of personal computers, with a membership in excess of 500 individual and corporate users.

60. Amicus Curiae Utah Valley PC User Group [Provo, UT] is a service organization consisting of approximately 125 individual and corporate users throughout Utah Valley.

61. Amicus Curiae Warner Robins' Users Group, Inc. [Warner Robins, GA] is a non-profit organization whose mission is to inform and help, and to educate on and about computer and software, and to provide assistance to users with computer-related problems. Total membership is 59, consisting of both individual and corporate users.

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